



## Sprint 1 Group 17

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## Introduction

This project will be a web application. Its intended use is for managing bowling lanes at a bowling alley. The application is accessible by all user groups even though customers have limited access. Customers will be able to see availability and news such as offers. Employees operate the website by booking lanes for customers either in person or from a phone call. Admins will in addition be able to manage employees and the news section of the website.

## Making of the software

What framework we will use

Django

Programming rules:

What class name rule: **PascalCase**

What function name rule: **camelCase**

What variable name rule: **snake\_case**

How much space between functions: **2 new lines**

## Elicitation

We primarily used brainstorming to come up with use cases and stakeholders for this project. We did this by meeting in person and online and discussing how the system could possibly be used and who could interface with it. We also briefly looked at some websites like keiluhollin.is to examine how their booking system worked to see if we might be missing something.

## List of requirements

<b>Nr.</b>	<b>Description</b>	<b>Priority</b>	<b>Notes</b>
1	As a customer I would like to be able to see information about the bowling alley.	<b>A</b>	Could be done by a page on the website.
2	As a customer I would like to be able to see information about how to book a lane at the bowling alley.	<b>A</b>	Could be done by a page on the website.
3	As a customer I would like to see a calendar of sorts that shows what days are busy or full.	<b>B</b>	We could implement this with a color coded calendar.
4	As an employee I want to be able to see the lanes that are not in use at a certain date and time.	<b>A</b>	
5	As an employee I want to be able to register more than one person to a lane so that groups can play together up to a certain limit (No more than 6 per lane)	<b>A</b>	
6	As a customer I want to receive an email when my booking has been confirmed so that I know I have booked a lane successfully	<b>A</b>	
7	As an employee I want to be able to remove bookings from people that have canceled their booking.	<b>A</b>	
8	As an employee I want to be able to edit bookings.	<b>A</b>	
9	As an employee I want to be able to add bookings to lanes.	<b>A</b>	
10	As an employee I want to be able to confirm when customers have paid for their bowling lanes.	<b>A</b>	

11	As an admin I would like to add and remove employees with the option of editing those accounts.	<b>A</b>	
12	As an admin I would like to add to the news section of the website.	<b>B</b>	
13	As an employee I want to be able to write down complaints and compliments from customers.	<b>B</b>	
14	As a customer I want to receive an email reminding me of my booking the day before.	<b>B</b>	

## Stakeholders

### Customers/Players

Customers make requests for bookings, players show up and play. Sometimes these people are the same, but generally one person will book for many people. The customer who requests the booking will not require any technical knowledge, the only thing they would require is a way to contact an employee either by phone or in person. The player's only interface with the system is fulfilling their booking, they show up to play and they leave when their time is up. These two groups can be from many backgrounds, people of any age can fulfill these roles.

### Employees

Employees are the people who will interface directly with the system to manage the booking of lanes. They should not require any specialized technical training for this as the system should be a simple website with a graphical interface. Employees can be of any age but are mostly young people aged 18-25.

### System managers/Admins

System managers, also called administrators will have greater access within the system to make changes to lanes and bookings and to add or remove user accounts. They will in general be older and more educated than the regular employees. These people will require more technical knowledge and training in the system.

## User stories

**US1.** As a customer I would like to be able to see information about the bowling alley, like how many bowling lanes there are, how many people can be on each lane, what time limits are to choose from, how to register a lane and a group, where the bowling alley is located, if there are any refreshments available like food and drinks so that when I come to the bowling alley I know what to expect.

**US2.** As a customer I would like to be able to see information about how to book a lane at the bowling alley so that I am able to book a lane.

**US3.** As a customer I would like to see a calendar of sorts that shows what days are busy or full, maybe with color coding so that I can book a day that suits me.

**US4.** As an employee I want to be able to see the lanes are not in use at a certain date and time so that I can easily add people to the timeslot they asked for.

**US5.** As an employee I want to be able to register more than one person to a lane so that groups can play together up to a certain limit (No more than 6 per lane) and if there are more than 6 people they have to register another lane.

**US6.** As a customer I want to receive an email when my booking has been confirmed so that I know I have booked a lane successfully.

**US7.** As an employee I want to be able to remove bookings from people that have canceled their booking, so that I can free up lanes for other customers.

**US8.** As an employee I want to be able to edit bookings, so that I can make changes to bookings as needed.

**US9.** As an employee I want to be able to add bookings to lanes, so that I can fulfill the customer request.

**US10.** As an employee I want to be able to confirm when customers have paid for their bowling lanes.

**US11.** As an admin I would like to add and remove employees with the option of editing those accounts so that I can add new employees to the system, remove the ones that have quit and edit mistakes or changes to the employees.

**US12.** As an admin I would like to add to the news section of the website so that I can showcase new offers and features to customers.

**US13.** As an employee I want to be able to write down complaints and compliments from customers so that I can see what is liked and what is not.

**US14.** As a customer I want to receive an email reminding me of my booking the day before so that i won't forget my booking.

**Bonus: stats tracker.** A stats tracker could be added later for administrators to examine what times are most popular for bookings etc.

## Scenarios

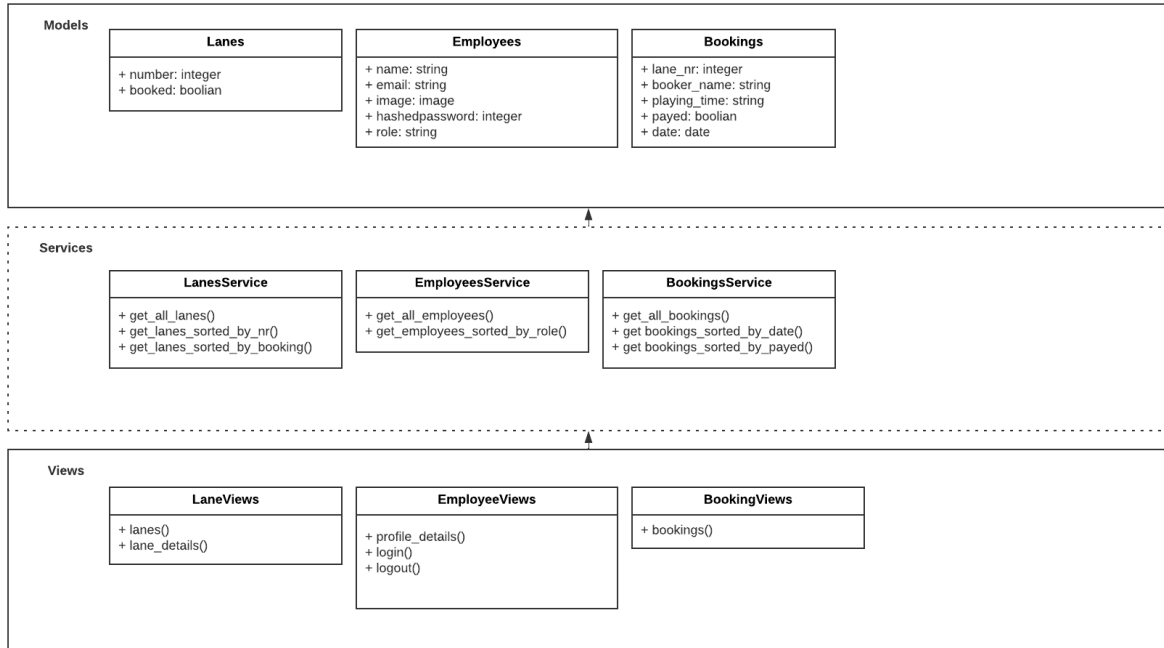
<b>Scenario 1</b>	Customer books a lane
<b>Starting situation</b>	A customer calls the bowling alley and requests a lane for a specific time.
<b>Normal event flow</b>	<ol style="list-style-type: none"><li>1. An employee answers the phone.</li><li>2. If they are not logged into the system they log in.</li><li>3. The employee checks for availability at the time the customer requested using the website's graphical interface.</li><li>4. The employee selects a lane and selects the time for the booking and the number of players.</li><li>5. The employee lets the customer know the booking is complete.</li></ol>
<b>What can go wrong</b>	<ol style="list-style-type: none"><li>1. The employee does not have an account in the system. The employee should contact an administrator to make them an account</li><li>2. There are no lanes available at the requested time. The employee should ask the customer for another time and look for availability then.</li></ol>
<b>Other activities</b>	Another employee or a system administrator may help the employee input the booking.
<b>System state on completion</b>	A booking is created in the system with the customer's information.



<b>Scenario 2</b>	Customer cancels a booking
<b>Starting situation</b>	A customer has a booked lane but wants to cancel.
<b>Normal event flow</b>	<ol style="list-style-type: none"> <li>1. Customer calls the bowling alley.</li> <li>2. An employee answers the phone.</li> <li>3. The employee logs into the system.</li> <li>4. The employee finds the name of the customer.</li> <li>5. The employee removes the booking.</li> <li>6. The employee lets the customer know that their booking has been canceled.</li> </ol>
<b>What can go wrong</b>	<ol style="list-style-type: none"> <li>1. a) Customer accidentally calls the bowling alley.</li> <li>2. a) An employee does not answer the phone. b) The phone line is busy when the customer calls.</li> <li>3. a) The employee is already logged in. b) The employee does not have an account.</li> <li>4. a) The employee does not find the name of the customer.</li> <li>6. a) The employee does not let the customer know that their booking has been canceled b) The customer hangs up before the phone call ends.</li> </ol>
<b>Other activities</b>	Another employee or a system administrator may help the employee input the booking.
<b>System state on completion</b>	A specific booking has been canceled in the system.

# Diagrams

## Class diagram



# State Diagram

